

ABSTRACT OF THE INVENTION

The invention provides a ball screw which is little subject to deterioration of operating characteristics and occurrence of wear, torque change, noise, vibration, etc.

5 during operation due to stagnation or competition of balls.

A ball screw comprising a screw shaft having a helical thread groove formed on the outer surface thereof and a nut having a thread groove formed on the inner surface thereof corresponding to the thread groove on the screw
10 shaft which engages with the screw shaft with the interposition of a number of balls rollably provided in a helical ball rolling path formed between the two thread grooves, wherein the variation of the total of the gap between said balls during the rolling of the balls is
15 smaller than $1/20$ of the diameter of the ball.